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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/512,395	02/24/2000	Jay J. Sturges	42390.PO744c2	5784

7590   12/24/2002

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EXAMINER
ZHEN, WEI Y

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 12/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		Applicant(s)
Office Action Summary	09/512,395		STURGES, JAY J.
	Examiner		Art Unit
	Wei Y Zhen		2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*2/24/2000*</u> .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1.   The Information Disclosure Statement filed 2/24/2000 (paper no. 2) has been considered.

Since PTO-1449 is not provided, these references are cited on the PTO-892 attched with this

Office Action.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.
Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686
F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA
1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application. See 37 CFR 1.130(b).
        Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2, 3, 4-10, 11-12, 13, 14-20 are rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 10-11, 10, 12-18, 1-2, 1, 3-9

respectively of U.S. Patent No. 5,721,924. Although the conflicting claims are not identical, they

are not patentably distinct from each other because of the following reasons.

The instant claim 1 is different from patented claim 10 because the instant claim 1 does not

recite means for directly encoding....without performing an intermediate step of extracting an op

code of said microinstruction; further a source code command input stream in the patented claim

10 is changed to a command input steam in the instant claim 1; a literal source code

macroinstruction in the patented claim is changed to a command identifier in the instant claim 1; a

corresponding subroutine address in the patented claim is changed to a corresponding processing

component identifier in the instant claim; a subroutine in the patented claim is changed to a

processing component in the instant claim 1. Clearly, applicant is attempting to obtain broader

coverage in the instant claim in the application. The change would be obvious to one of the

ordinary skill in the art at the time the invention was made because one of ordinary skill in the art

would want to perform the interpretation on various types of components as required by different

types of systems.

The instant claim 2 is different from patented claim 11 because said subroutine address in

the patented claim is changed to said processing component identifier in the instant claim; said

subroutine in the patented claim is changed to said processing component in the instant claim.

Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application.

The change would be obvious to one of the ordinary skill in the art at the time the invention was

made because one of ordinary skill in the art would want to perform the interpretation on various

types of components as required by different types of systems.

The instant claim 3 is different from patented claim 10 because the instant claim does not

recite wherein said arguments are pushed into the execution stream in reverse order; said

subroutine address in the patented claim is changed to said processing component identifier in the

instant claim; Clearly, applicant is attempting to obtain broader coverage in the instant claim in

the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 4 is different from patented claim 12 because said subroutine address in the patented claim is changed to said processing component identifier in the instant claim; said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 5 is different from patented claim 13 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 6 is different from patented claim 14 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one

of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 7 is different from patented claim 15 because said second subroutine in the patented claim is changed to said second processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 8 is different from patented claim 16 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claims 9 and 10 are different from patented claims 17 and 18 (see the rejection to claim 3 above). Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 11 is different from patented claim 1 because the instant claim 11 does

not recite directly encoding....without performing an intermediate step of extracting an op code of

said microinstruction; further a source code command input stream in the patented claim 1 is

changed to a command input steam in the instant claim 11; a literal source code macroinstruction

in the patented claim is changed to a command identifier in the instant claim; a corresponding

subroutine address in the patented claim is changed to a corresponding processing component

identifier in the instant claim; a subroutine in the patented claim is changed to a processing

component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the

instant claim in the application. The change would be obvious to one of the ordinary skill in the

art at the time the invention was made because one of ordinary skill in the art would want to

perform the interpretation on various types of components as required by different types of

systems.

The instant claim 12 is different from patented claim 2 because said subroutine address in

the patented claim is changed to said processing component identifier in the instant claim; said

subroutine in the patented claim is changed to said processing component in the instant claim.

Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application.

The change would be obvious to one of the ordinary skill in the art at the time the invention was

made because one of ordinary skill in the art would want to perform the interpretation on various

types of components as required by different types of systems.

The instant claim 13 is different from patented claim 1 because the instant claim does not recite wherein said arguments are pushed into the execution stream in reverse order; said subroutine address in the patented claim is changed to said processing component identifier in the instant claim; Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 14 is different from patented claim 3 because said subroutine address in the patented claim is changed to said processing component identifier in the instant claim; said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 15 is different from patented claim 4 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 16 is different from patented claim 5 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 17 is different from patented claim 6 because said second subroutine in the patented claim is changed to said second processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claim 18 is different from patented claim 7 because said subroutine in the patented claim is changed to said processing component in the instant claim. Clearly, applicant is attempting to obtain broader coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

The instant claims 19 and 20 are different from patented claims 8 and 9 (see the rejection to claim 13 and 11 respectively above). Clearly, applicant is attempting to obtain broader

coverage in the instant claim in the application. The change would be obvious to one of the ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would want to perform the interpretation on various types of components as required by different types of systems.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6-7, 9, 11, 13, 16-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitadate, US 5,721,924.

As per claim 11, Kitadate disclose a programmable interpreter (abstract)

- receiving a command input steam, said command input stream having a command identifier; encoding said command identifier into a corresponding processing component identifier (col. 2 lines 35-45 and col. 7 lines 5-25); executing a processing component identified by said processing component identifier (col 2 lines 46-55 and col. 7 lines 5-49).

As per claim 13, the rejection of claim 11 is incorporated and further Kitadate disclose generating an execution stream for storing said processing component identifier and associated arguments (col 7 lines 5-25, an execution stream is inherently translated).

As per claim 16, the rejection of claim 13 is incorporated and further Kitadate discloses

a step of pointing to the first item associated with said processing component storing in said

execution stream (col. 8 lines 25-47).

As per claim 17, the rejection of claim 1 is incorporated and further Kitadate discloses a

step of pointing to a first item associated with a second processing component stored in said

execution stream (col. 8 lines 25-47).

As per claim 19, the rejection of claim 13 is incorporated and further Kitadate discloses

a step of interpreting said execution stream (col. 20 lines 61-67).

Claims 1, 3, 6-7, 9 are a programmable interpreter claim corresponding to method claim

11, 13, 16-17, 19 respectively and rejected for the reason set forth in the rejections of claims 11,

13, 16-17, 19 respectively.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 2, 4, 5, 12, 14, 15, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kitadate, US 5,721,924 in view of Aho (Compilers, Principles, Techniques, and Tools).

As per claim 12, the rejection of claim 11 is incorporated and further Kitadate disclose a processing component identified by a processing component identifier (see rejection of claim 11 above). Kitadate does not explicitly disclose pushing an argument onto a stack, said argument used as an input to a processing component. However, Aho discloses pushing an argument onto a stack, said argument used as an input to a processing component (p. 65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Aho into Kitadate to push an argument onto a stack, said argument used as an input to a processing component because one would want to facilitates the computational process.

As per claim 14, the rejection of claim 11 is incorporated and further Kitadate disclose a processing component identified by a processing component identifier (see rejection of claim 11 above). Kitadate does not explicitly disclose popping an argument from a stack, said argument used as an input to a processing component. However, Aho discloses popping an argument from a stack, said argument used as an input to a processing component (p. 65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Aho into Kitadate to pop an argument from a stack, said argument used as an input to a processing component because one would want to facilitates the computational process.

As per claim 15, the rejection of claim 11 is incorporated and further Kitadate does not explicitly disclose pushing a result of the execution of said processing component onto a stack. However, Aho discloses pushing an argument onto a stack, said argument used as an input to a processing component (p. 65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Aho into Kitadate to push an argument onto a stack, said argument used as an input to a processing component because one would want to facilitates the computational process.

As per claim 20, the rejection of claim 11 is incorporated and further Kitadate doesn't explicitly disclose a step of parsing said command input stream.

However, Aho discloses parsing a command input stream (p. 160).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Aho into Kitadate to parse said command input stream because one would want to facilitates the process of the interpretation.

Claims 2, 4, 5 are a programmable interpreter claim corresponding to method claims 12, 14, 15 respectively and rejected for the reason set forth in the rejections of claims 12, 14, 15 respectively.

5.   Claims 8, 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitadate, US 5,721,924.

As per claim 18, the rejection of claim 11 is incorporated and further Kitadate does not explicitly disclose recursively executing a processing component.

However, Official Notice is taken that recursively executing a processing component was well known in the art at the time the invention was made.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of the well known knowledge into Kitadate to recursively executing a processing component because one would want to utilize the process component when it is needed during the execution process.

Claim 8 is a programmable interpreter claim corresponding to method claim 18 and rejected for the reason set forth in the rejection of claim 18.

As per claim 10, the rejection of claim 3 is incorporated and further Kitadate does not explicitly disclose said execution stream is stored in random access memory.

However, Official Notice is taken that storing execution stream in random access memory was well known in the art at the time the invention was made.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of the well known knowledge into Kitadate to store the execution stream in random access memory because one would want to ensure the order of access to different locations does not affect the speed of access.

Art Unit: 2122

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

7.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Wei Zhen whose telephone number is (703)305-0437.

The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor

Greg Morse can be reached at (703) 308-4789. The fax number for this group is (703)308-1396.

Any inquiry of general nature or relating to the status of this application or proceeding

should be directed to the group receptionist whose telephone number is (703)305-9600.

Wei Zhen

12/19/2002